Configuring and Troubleshooting Windows Server 2008 Active Directory Domain

MOC 6425

Course Outline

Module 1: Introducing Active Directory Domain Services

This module provides an overview of Active Directory components and concepts and steps through the basics of installing and configuring an Active Directory domain

Lessons

- Lesson 1: Overview of Active Directory, Identity, and Access
- Lesson 2: Active Directory Components and Concepts
- Lesson 3: Install Active Directory Domain Services

Lab : Install an AD DS DC to Create a Single Domain Forest

- Perform Post-Installation Configuration Tasks
- Install a New Windows Server 2008 Forest with the Windows Interface
- Raise Domain and Forest Functional Levels

After completing this module, students will be able to:

- Describe the functionality of AD DS in an enterprise in relation to identity and access.
- Describe the major components of AD DS.
- Install AD DS and configure it as a domain controller.

Module 2: Administering Active Directory Securely and Efficiently

This module explains how to work securely and efficiently in Active Directory using Administration Tools and some best practices as well as use of Windows PowerShell.

Lessons

- Work with Active Directory Administration Tools
- Custom Consoles and Least Privilege
- Find Objects in Active Directory
- Use Windows PowerShell to Administer Active Directory

Lab : Administer Active Directory Using Administrative Tools

- Perform Administrative Tasks by Using Administrative Tools
- Create a Custom Active Directory Administrative Console
- Perform Administrative Tasks with Least Privilege, Run As Administrator, and User Account Control

Lab : Find Objects in Active Directory
- Find Objects in Active Directory
- Use Saved Queries

Lab : Use Windows PowerShell to Administer Active Directory
- Use PowerShell Commands to Administer Active Directory

After completing this module, students will be able to:
- Describe and work with Active Directory administration tools.
- Describe the purpose and functionality of custom consoles and least privilege.
- Locate objects in Active Directory.
- Administer Active Directory by using Windows PowerShell.

Module 3: Managing Users and Service Accounts
This module explains how to create, manage and support user and Managed Service Accounts in Active Directory.

Lessons
- Create and Administer User Accounts
- Configure User Object Attributes
- Automate User Account Creation
- Create and Configure Managed Service Accounts

Lab : Create and Administer User Accounts
- Create User Accounts
- Administer User Accounts

Lab : Configure User Object Attributes
- Examine User Object Attributes
- Manage User Object Attributes
- Create Users from a Template

Lab : Automate User Account Creation
- Export and Import Users with CSVDE
- Import Users with LDIFDE
- Import Users by Using Windows PowerShell

Lab : Create and Administer Managed Service Accounts
- Create and Associate a Managed Service Account

After completing this module, students will be able to:
- Create and administer user accounts.
- Configure user object attributes.
- Automate user account creation.
- Create and configure managed service accounts.

Module 4: Managing Groups
This module explains how to create, modify, delete, and support group objects in Active Directory.

Lessons
- Overview of Groups
- Administer Groups
- Best Practices for Group Management

Lab : Administer Groups
- Implement Role-Based Management by Using Groups
- (Advanced Optional) Explore Group Membership Reporting Tools
- (Advanced Optional) Understand "Account Unknown" Permissions

Lab : Best Practices for Group Management
- Implement Best Practices for Group Management

After completing this module, students will be able to:
- Describe the role of groups in managing an enterprise.
- Administer groups with by using the built-in tools in Windows Server 2008
- Describe the best practices for managing groups.

Module 5: Managing Computer Accounts
This module explains how to create and configure computer accounts.

Lessons
- Create Computers and Join the Domain
- Administer Computer Objects and Accounts
- Perform an Offline Domain Join

Lab : Create Computers and Join the Domain
- Join a computer to the Domain with the Windows Interface
- Secure Computer Joins
- Manage Computer Account Creation

Lab : Administer Computer Objects and Accounts
- Administer Computer Objects Through Their Life Cycle
- Administer and Troubleshoot Computer Accounts

Lab : Perform an Offline Domain Join
- Perform an Offline Domain Join

After completing this module, students will be able to:
- Create computer accounts and join them to a domain.
- Administer computer objects and accounts by using the Windows Interface and command-line tools.
- Describe and perform the Offline Domain Join process.

Module 6: Implementing a Group Policy Infrastructure
This module explains what Group Policy is, how it works, and how best to implement Group Policy in your organization.

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Lessons
- Understand Group Policy
- Implement GPOs
- Manage Group Policy Scope
- Group Policy Processing
- Troubleshoot Policy Application

Lab : Implement Group Policy
- Create, Edit, and Link GPOs
- Use Filtering and Commenting

Lab : Manage Group Policy Scope
- Configure GPO Scope with Links
- Configure GPO Scope with Filtering
- Configure Loopback Processing

Lab : Troubleshoot Policy Application
- Perform RSoP Analysis
- Use the Group Policy Modeling Wizard
- View Policy Events

After completing this module, students will be able to:
- Describe the components and technologies that comprise the Group Policy framework.
- Implement GPOs.
- Configure and understand a variety of policy setting types.
- Scope GPOs by using links, security groups, Windows Management Instrumentation filters, loopback processing, and preference targeting.
- Describe how GPOs are processed.
- Locate the event logs containing Group Policy–related events and troubleshoot Group Policy application.

Module 7: Managing User Desktop with Group Policy
This module explains how to manage and configure desktop environments using Administrative templates and Group Policy Preferences as well as how to deploy software using Group Policy

Lessons
- Implement Administrative Templates
- Configure Group Policy Preferences
- Manage Software with GPSI

After completing this module, students will be able to:

- Manage group membership by using Group Policy Settings
- Manage security settings
- Describe the purpose and functionality of auditing
- Describe the purpose of the Software Restriction Policy and Applocker

Module 9: Securing Administration

This module explains how to administer Active Directory Domain Services Securely.

Lessons

- Delegate Administrative Permissions
- Audit Active Directory Administration

Lab : Delegate Administration

- Delegate Permission to Create and Support User Accounts
- View Delegated Permissions
- Remove and Reset Permissions

Lab : Audit Active Directory Changes

- Audit Changes to Active Directory Using Default Audit Policy
- Audit Changes to Active Directory Using Directory Service Changes Auditing

After completing this module, students will be able to:

- Delegate administrative permissions.
- Audit Active Directory administration.

Module 10: Improving the Security of Authentication in an AD DS Domain

This module explains the domain-side components of authentication, including the policies that specify password requirements and the auditing of authentication-related activities.

Lessons

- Configure Password and Lockout Policies
- Audit Authentication
- Configure Read-Only Domain Controllers

Lab : Configure Password and Account Lockout Policies

- Configure the Domain's Password and Lockout Policies
- Configure a Fine-Grained Password Policy

Lab : Audit Authentication

- Audit Authentication

Lab : Configure Read-Only Domain Controllers

- Exercise 1: Install an RODC

- Exercise 2: Configure Password Replication Policy
- Exercise 3: Manage Credential Caching

After completing this module, students will be able to:
- Configure password and lockout policies.
- Audit authentication.
- Configure read-only domain controllers.

Module 11: Configuring Domain Name System
This module explains how to implement DNS to support name resolution both within your AD DS domain and outside your domain and your intranet.

Lessons
- Install and Configure DNS in an AD DS Domain
- Integration of AD DS, DNS, and Windows
- Advanced DNS Configuration and Administration

Lab : Installing the DNS Service
- Add the DNS Server Role
- Configure Forward Lookup Zones and Resource Records

Lab : Advanced Configuration of DNS
- Enable Scavenging of DNS Zones
- Explore Domain Controller Location
- Configure Name Resolution for External Domains

After completing this module, students will be able to:
- Install and configure DNS in an AD DS domain.
- Describe the integration of AD DS, DNS, and Windows.
- Describe advanced DNS configuration and administration tasks.

Module 12: Administering AD DS Domain Controllers
This module explains how to add Windows Server 2008 domain controllers to a forest or domain, how to prepare a Microsoft Windows Server 2003 forest or domain for its first Windows Server 2008 DC, how to manage the roles performed by DCs, and how to migrate the replication of SYSVOL from the File Replication Service (FRS) used in previous versions of Windows to the Distributed File System Replication (DFS-R) mechanism that provides more robust and manageable replication.

Lessons
- Domain Controller Installation Options
- Install a Server Core Domain Controller
- Manage Operations Masters
- Configure Global Catalog
- Configure DFS-R Replication of SYSVOL

Lab : Install Domain Controllers
- Create an Additional DC with the Active Directory Domain Services Installation Wizard
- Add a Domain Controller from the Command Line
- Create a Domain Controller from Installation Media

Lab : Install a Server Core Domain Controller
- Perform Post-Installation Configuration on Server Core
- Create a Domain Controller with Server Core

Lab : Transfer Operations Masters Roles
- Identify Operations Masters
- Transfer Operations Masters Roles

Lab : Configure the Global Catalog and Universal Group Membership Caching
- Configure a Global Catalog
- Configure Universal Group Membership Caching

Lab : Configure DFS-R Replication of SYSVOL
- Observe the Replication of SYSVOL
- Prepare to Migrate to DFS-R
- Migrate SYSVOL Replication to DFS-R
- Verify DFS-R Replication of SYSVOL

After completing this module, students will be able to:
- Identify the domain controller installation options.
- Install a Server Core DC.
- Manage operations masters.
- Configure Global Catalog
- Configure DFS-R replication of SYSVOL.

Module 13: Managing Sites and Active Directory Replication
This module explains how to create a distributed directory service that supports domain controllers in portions of your network that are separated by expensive, slow, or unreliable links and how to configure replication amongst those servers.

Lessons
- Configure Sites and Subnets
- Configure Replication

Lab : Configure Sites and Subnets
- Configure the Default Site
- Create Additional Sites
- Move Domain Controllers into Sites

Lab : Configure Replication
- Create a Connection Object
- Create Site Links
- Designate a Preferred Bridgehead Server
- Configure Intersite Replication

After completing this module, students will be able to:
- Configure sites and subnets.
- Configure replication.

Module 14: Directory Service Continuity
This module explains about the technologies and tools that are available to help ensure the health and longevity of the directory service. You will explore tools that help you monitor performance in real time, and you will learn to log performance over time so that you can keep an eye on performance trends in order to spot potential problems.

Lessons
- Monitor Active Directory
- Manage the Active Directory Database
- Active Directory Recycle Bin
- Back Up and Restore AD DS and Domain Controllers

Lab : Monitor Active Directory Events and Performance
- Monitor AD DS with Performance Monitor
- Work with Data Collector Sets

Lab : Manage the Active Directory Database
- Perform Database Maintenance
- Work with Snapshots and Recover a Deleted User

Lab : Using Active Directory Recycle Bin
- Enable Active Directory Recycle Bin
- Restore Deleted Objects with Active Directory Recycle Bin

Lab : Back Up and Restore Active Directory
- Back Up Active Directory
- Restore Active Directory and a Deleted OU

After completing this module, students will be able to:
- Monitor Active Directory.
- Manage the Active Directory database.
- Describe the purpose of the Active Directory Recycle Bin.
- Back up and restore AD DS and domain controllers.

Module 15: Managing Multiple Domains and Forests
This module explains how to raise the domain and forest functionality levels within your environment, how to design the optimal AD DS infrastructure for your enterprise, how to migrate objects between domains and forests, and how to enable authentication and resources access across multiple domains and forests.

Lessons
- Configure Domain and Forest Functional Levels
- Manage Multiple Domains and Trust Relationships
- Move Objects between Domains and Forests

Lab : Administer Trust Relationships
- Configure Name Resolution between Contoso.com and Tailspintoys.com
- Create a Forest Trust

After completing this module, students will be able to:
- Configure domain and forest functional levels.
- Manage multiple domains and trust relationships.
- Move objects between domains and forests.